

Appl. No. 10/659,100  
Docket No. 9031  
Amdt. Dated March 31, 2010  
Reply to Office Action mailed on October 5, 2009  
Customer No. 27752

## REMARKS

### Claim Status

Claims 7-10 and 19-27 are pending in the present application. Claims 1-6, 28, 30, 31, 33, and 34 were previously cancelled without prejudice. No additional claims fee is believed to be due.

### Art Rejections

#### 35 USC §103(a) Over Leaderman in view of McLaughlin

Claims 8-10, 19, 20, and 22-27 have been rejected under 35 USC §103(a) over Leaderman (US 2002/0061329) (Leaderman) in view of McLaughlin (US 6,274,122). This rejection is traversed and reconsideration respectfully requested.

The independent claims addressed in this rejection are claims 19 and 23. Independent claim 19 recites in relevant part a tooth whitening product comprising a film and a mesh comprising a plurality of fibers which are arranged to define a plurality of void spaces which extend through the thickness of the film and are from about 1μm to about 50μm wide. Claim 23 is directed in relevant part to a tooth whitening product having a film with a first water hydratable polymer and a tooth whitening agent as well as a mesh comprising a plurality of fibers comprising a second water hydratable polymer, the fibers arranged to define a plurality of void spaces that are from about 1μm to about 50μm wide.

The Office Action notes that “Leaderman discloses system [sic] that may be used to delivery whitening agents to teeth.” Leaderman also discloses wound dressings and drug delivery systems that can be applied to tissue or skin in the oral area. Further as noted by the Office Action, Leaderman discloses dressing materials that “include porous, non-porous, or micro porous polyesters, rayons, cottons, wools, silks, papers, foams (open and closed cell), woven and non-woven fabrics, polyolefins, polyesters, copolyesters, polyurethanes, ethyl vinyl acetate, polyether block amides, ethylene methacrylic acids or polyethylene” (Page 3 of Office Action, referring to paragraph 41 of Leaderman). The Office Action then asserts that the Leaderman “non-woven and

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woven fabrics are interpreted as the mesh of the instant claims” that are further asserted to have void spaces (Page 3). However, the Office Action does note that the size of the alleged inherent voids is not taught, specifically there is no disclosure of such voids being from about 1  $\mu\text{m}$  to about 50  $\mu\text{m}$ .

McLaughlin does not correct the deficiencies of Leaderman as the Office Action notes that McLaughlin similarly does not teach or suggest void spaces having any particular size, much less from 1  $\mu\text{m}$  to about 50  $\mu\text{m}$ .

Furthermore, with regard to Claim 23, the Office Action points to nowhere in either reference to teach or suggest that the fibers of the mesh would comprise a second water-hydratable polymer.

Despite these failings, the Office Action argues that it would have been obvious from the teaching of Leaderman and McLaughlin that selection of a certain size void would have been a simple optimization to achieve “the desired rate of passage of water to achieve the desire [sic] rate of delivery of the active composition.” Although the Office Action points to McLaughlin for teaching that water passes through the inner layer, the Office Action fails to point to any specific teaching or suggestion in either reference that the size of the voids is important for any purpose. Further, even if one of ordinary skill reading McLaughlin would believe that the size of the voids could be used to regulate the amount and rate of water, the Office Action has pointed to nowhere in either reference to teach or suggest that any particular void size would be useful with any particular type of the various “dressings” taught by Leaderman, *particularly as the Office Action notes that Leaderman discloses that the dressing material can be “nonporous, porous or microporous fabric.”* Applicants respectfully submit that this teaching by Leaderman would *teach directly away from* the belief that the Leaderman dressings require any voids at all, much less those of a certain size or that any particular void size would be useful for any purpose.

As such, it is respectfully submitted that Leaderman in view of McLaughlin does not establish a *prima facie* case of obviousness because the Office Action fails to point to teachings relating to all of the limitations of independent claims 19 and 23. Therefore, claims 19 and 23, and

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those claims dependent therefrom are nonobvious over Leaderman in view of McLaughlin and reconsideration is respectfully requested.

35 USC §103(a) Over Jones in view of McLaughlin

Claims 10, 19, 20 and 22-24 have been rejected under 35 USC §103(a) over Jones et al (US 2005/0260544) (Jones) in view of McLaughlin (US 6,274,122). This rejection is traversed and reconsideration respectfully requested.

The Office Action states that Jones discloses fabric, woven or non-woven materials in combination with a peroxide-containing tooth-whitening gel containing water hydratable polymers. The Office Action asserts that the fabric, woven or non-woven materials of Jones would be considered the “mesh” component of the present invention and seems to assert that such materials would further comprise a plurality of fibers which are arranged to define a plurality of void spaces, although the Office Action does not specifically point to such a teaching in Jones. However, the Office Action does note that the size of the alleged inherent voids is not taught, specifically noting that there is no disclosure of such voids being defined by a plurality of fibers arranged such that the voids are from about 1  $\mu$ m to about 50  $\mu$ m.

McLaughlin does not correct the deficiencies of Jones as the Office Action notes that McLaughlin similarly does not teach or suggest void spaces having any particular size, much less from 1  $\mu$ m to about 50  $\mu$ m.

Additionally, with regard to Claim 23, the Office Action points to nowhere in either reference to teach or suggest that the fibers of the mesh would comprise a second water-hydratable polymer. Although rejecting claim 23 over Jones in view of McLaughlin, the Office Action states in a later rejection of Claim 21 (at Page 8), that the combination of Jones and McLaughlin “differs from the instant claim [claim 21] insofar as it does not disclose the fibers of the fabric comprise a hydratable polymer.”

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Despite these failings, the Office Action argues that it would have been obvious from the teaching of Jones and McLaughlin that selection of a certain size void would have been a simple optimization to achieve “the desired rate of passage of water to achieve the desire [sic] rate of delivery of the active composition.” Although the Office Action points to McLaughlin for teaching that water passes through the inner layer, the Office Action fails to point to any specific teaching or suggestion in either reference that the size of the voids is important for any purpose.

As such, it is respectfully submitted that Jones in view of McLaughlin does not establish a *prima facie* case of obviousness because the Office Action fails to point to teachings relating to all of the limitations of independent claims 19 and 23. Therefore, claims 19 and 23, and those claims dependent therefrom are nonobvious over Jones in view of McLaughlin and reconsideration is respectfully requested.

35 USC §103(a) Over Jones in view of McLaughlin and Ruben

Claim 7 has been rejected under 35 USC §103(a) over Jones in view of McLaughlin as discussed above, and further in view of Ruben (US 6,146,655). This rejection is traversed and reconsideration respectfully requested.

As discussed above, Jones in view of McLaughlin fail to teach or suggest the present invention relating to a tooth whitening product comprising a film and a mesh comprising a plurality of fibers which are arranged to define a plurality of void spaces which extend through the thickness of the film and are from about 1µm to about 50µm wide. Claim 7 depends upon Claim 19 and further recites that the fibers have a diameter of between 1 micron and 200 microns.

The Office Action notes that Jones in view of McLaughlin fails to disclose the diameter of the fibers of the fabrics disclosed therein. Applicants respectfully submit that Ruben fails to correct the deficiencies of Jones and McLaughlin.

The Office Action points to Ruben for teaching fibers having a diameter of 200 microns as reinforcements in gel/fiber compositions. The Office Action notes that Ruben does not teach that the

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fibers form a mesh or that the compositions contain a tooth-whitening agent. However, the Office Action argues that it would have been obvious to combine the fiber size of Ruben with the combination of Jones and McLaughlin for reinforcing the gel compositions of Jones and McLaughlin. Applicants respectfully submit that the combination of Jones, McLaughlin, and Ruben fail to establish a *prima facie* case of obviousness for at least two reasons.

First, Ruben similarly fails to teach or suggest any selection of void size for any particular purpose, thereby failing to resolve the deficiencies of Jones and McLaughlin discussed above. Secondly, the Office Action speculates that there would be a desire to reinforce the gel of Jones and McLaughlin with the Ruben fiber size, but points to nowhere in any of the references to suggest such reinforcements would be useful or desirable for the whitening devices disclosed by McLaughlin. In fact, it's just as easy to argue that it would be desirable to avoid reinforcing the gel of Jones and McLaughlin used for whitening as it would then have negative mouthfeel or be too inflexible and difficult to remove from the oral cavity. In short, the Office Action has not pointed to anywhere in the references for such a teaching or suggestion, but has instead used impermissible hindsight to cobble together portions of the reference teachings and to assert that one of ordinary skill would be motivated to select specific materials from Jones, specific materials from McLaughlin, combine these together, modify the void size, and then select specific materials from Ruben, and finally to combine them together to form the present invention.

As such, it is respectfully submitted that Jones in view of McLaughlin and further in view of Ruben does not establish a *prima facie* case of obviousness because the Office Action fails to point to teachings relating to all of the limitations of claim 7. Therefore, claim 7 is nonobvious over Jones in view of McLaughlin further in view of Ruben and reconsideration is respectfully requested.

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35 USC §103(a) Over Jones in view of McLaughlin and Chen

Claim 21 has been rejected under 35 USC §103(a) over Jones in view of McLaughlin as discussed above, and further in view of Chen (US 6,261,679). This rejection is traversed and reconsideration respectfully requested.

As discussed above, Jones in view of McLaughlin fail to teach or suggest the present invention relating to a tooth whitening product comprising a film and a mesh comprising a plurality of fibers which are arranged to define a plurality of void spaces which extend through the thickness of the film and are from about 1μm to about 50μm wide. Claim 21 depends upon claim 19 and further recites that the plurality of fibers comprises a water hydratable polymer.

The Office Action notes that Jones in view of McLaughlin “differs from the instant claim [claim 21] insofar as it does not disclose the fibers of the fabric comprise a hydratable polymer.”

The Office Action points to Chen for teaching hydrophilic fibers used to make structures with good integrity and resiliency, such as fiber enforced foams for dental absorbents and medical sponges. However, the Office Action notes that Chen does not teach the structures comprise oral care agents or contain a tooth-whitening agent. However, the Office Action still asserts that it would have been obvious to combine the hydrophilic fibers of Chen with the combination of Jones and McLaughlin to “increase the integrity and resiliency of the device without subtracting from absorbent attributes desired in an absorbent material.”

Applicants respectfully disagree and submit that the combination of Jones, McLaughlin, and Chen fail to establish a *prima facie* case of obviousness for at least two reasons. First, Chen similarly fails to teach or suggest any selection of void size for any particular purpose, thereby failing to resolve the deficiencies of Jones and McLaughlin discussed above. Secondly, the Office Action speculates that there would be a desire to increase the integrity and resiliency of Jones and McLaughlin with the Chen fibers, but points to nowhere in any of the references to suggest such changes would be useful or desirable for the whitening devices disclosed by McLaughlin. In fact,

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it's just as easy to argue that it would be desirable to avoid increasing the integrity and resiliency of Jones and McLaughlin used for whitening as it would then have negative mouthfeel or be difficult to remove from the oral cavity. In short, the Office Action has not pointed to anywhere but the use of impermissible hindsight to establish that one of ordinary skill would be motivated to select specific materials from Jones, specific materials from McLaughlin, combine these together, modify the void size, and then select specific materials from Chen, and finally to combine them together to form the present invention.

As such, it is respectfully submitted that Jones in view of McLaughlin and further in view of Chen does not establish a *prima facie* case of obviousness because the Office Action fails to point to teachings relating to all of the limitations of claim 21. Therefore, claim 21 is nonobvious over Jones in view of McLaughlin further in view of Chen and reconsideration is respectfully requested.

Conclusion

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied references. In view of the foregoing, reconsideration of this application and allowance of the pending claims are respectfully requested.

Respectfully submitted,

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